## **AMENDMENTS TO THE CLAIMS:**

Please amend claims 1, 16, 17, 27, and 28 as indicated below. Please cancel claim 26 without prejudice or disclaimer. New claim 30 has been added. This listing of claims will replace all prior versions and listings of claims in the application. Deletions appear in strikethrough font or [[inside double brackets]], and additions are underlined.

### Complete listing of claims

1. (Currently Amended) A pyridazin-3(2H)-one derivative compound of formula (I):

#### wherein

R<sup>1</sup> and R<sup>2</sup> represent independently from each other:

- a hydrogen atom;
- a group chosen from acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl and dialkylcarbamoyl;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
  carbamoyl and mono- and di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, wherein said aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl,

acyloxy, alkylthio, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;

- a saturated or unsaturated heterocyclic group, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, oxo, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;
- a group of formula

$$-(CH_2)_n-R^6$$

wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents
  chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio,
  amino, mono- and di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl,
  carbamoyl, mono- and di-alkylcarbamoyl, cyano, trifluoromethyl,
  difluoromethoxy and trifluoromethoxy groups;
- or a 3- to 7-membered ring having from 1 to 4 heteroatoms chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- and di-alkylamino, nitro, cyano and trifluoromethyl groups;

R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkylene groups, which are optionally substituted by one or more substituents chosen from halogen atoms; phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl groups;
- phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, aryloxy, alkylthio,
  alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, acyl, amino, mono- and dialkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and
  di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido,
  aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and
  trifluoromethoxy groups;

R<sup>5</sup> represents a group –COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, wherein said –COOR<sup>7</sup> or monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkenyl groups, which are optionally substituted by one or more substituents chosen from halogen atoms, phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,

hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl groups; and

• phenyl, hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, amino, mono- and di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;

wherein R<sup>7</sup> represents an alkyl, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl groups, and a group of formula

 $-(CH_2)_n-R^6$ 

wherein n and R<sup>6</sup> are as defined above; and

# R<sup>4</sup> represents:

- a hydrogen atom;
- a hydroxy, alkoxy, amino, mono- or di-alkylamino group;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino,

acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl and mono- and dialkylcarbamoyl groups;

or a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n and R<sup>6</sup> are as defined above

or a N-oxide obtainable from heteroaryl radicals present in the structure when said heteroradical comprise at least one N atom or a pharmaceutically acceptable salt thereof;[[.]]

with the proviso that when R<sup>5</sup> is neither an optionally substituted heteroaryl group nor a group COOR<sup>7</sup>, R<sup>3</sup> is an optionally substituted heteroaryl group.

- 2. (Previously Presented) A compound according to claim 1 wherein R<sup>2</sup> represents a hydrogen atom or an aryl group, which is optionally substituted by one or more substituents chosen from halogen atoms, nitro, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl and CO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl) groups.
- 3. (Previously Presented) A compound according to claim 2, wherein R<sup>2</sup> is a hydrogen atom or a phenyl group, which is unsubstituted or substituted with 1 or 2 unsubstituted

substituents chosen from fluorine atoms, chlorine atoms, and nitro,  $C_1$ - $C_4$  hydroxyalkyl and  $-CO_2$ - $(C_1$ - $C_2$  alkyl) groups.

- 4. (Previously Presented) A compound according to claim 1, wherein R<sup>1</sup> represents a group chosen from:
  - a (C<sub>1</sub>.C<sub>4</sub>) alkyl group, which is optionally substituted by one or more hydroxy groups; and
  - groups of formula

wherein n is an integer from 1 to 3 and  $R^6$  represents a  $(C_3.C_6)$  cycloalkyl group.

- 5. (Original) A compound according to claim 4, wherein  $R^1$  is an unsubstituted  $C_1$ - $C_4$  alkyl, an unsubstituted  $C_1$ - $C_4$  hydroxyalkyl or an unsubstituted cyclopropyl-( $C_1$ - $C_4$  alkyl)- group.
- 6. (Previously Presented) A compound according to claim 1, wherein R³ represents a monocyclic or polycyclic aryl or heteroaryl group, wherein said monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from:
  - halogen atoms;
  - alkyl and alkylene groups, wherein said alkyl and alkylene groups are optionally substituted by one or more substituents chosen from halogen atoms;

- phenyl, hydroxy, hydroxycarbonyl, hydroxyalkyl, alkoxycarbonyl, alkoxy, cycloalkoxy, nitro, aryloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, acyl, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;
- 7. (Previously Presented) A compound according to claim 6, wherein R³ represents a group chosen from monocyclic or polycyclic aryl or heteroaryl groups, wherein said monocyclic or polycyclic aryl or heteroaryl groups are optionally substituted by one or more substituents chosen from:
  - halogen atoms;
  - (C<sub>1</sub>.C<sub>4</sub>) alkyl groups, which are optionally substituted by one or more hydroxy groups;
  - and (C<sub>1</sub>-C<sub>4</sub>) alkoxy, nitro, hydroxy, hydroxycarbonyl, carbamoyl, (C<sub>1</sub>-C<sub>4</sub>
     alkoxy)-carbonyl and cyano groups.
- 8. (Previously Presented) A compound according to claim 7, wherein R³ represents a phenyl group, a naphthyl group or a 5- to 14-membered monocylic or polycyclic heteroaryl group containing 1, 2 or 3 heteroatoms chosen from N, O and S, the phenyl, naphthyl and heteroaryl groups being unsubstituted or substituted with 1 or 2 unsubstituted substituents chosen from:
  - halogen atoms;

- C<sub>1</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>4</sub> hydroxyalkyl groups; and
- C<sub>1</sub>-C<sub>4</sub> alkoxy, nitro, hydroxy, hydroxycarbonyl, carbamoyl, (C<sub>1</sub>-C<sub>4</sub> alkoxy)carbonyl and cyano groups.
- 9. (Previously Presented) A compound according to claim 8 wherein R³ represents a phenyl group, a naphtyl group or a substituted or unsubtituted heteroaryl group chosen from substituted or unsubstituted oxadiazolyl, oxazolyl, pyridyl, pyrrolyl, imidazolyl, thiazolyl, thiadiazolyl, thienyl, furanyl, quinolinyl, isoquinolinyl, indolyl, benzoxazolyl, naphthyridinyl, benzofuranyl, pyrazinyl, pyrimidinyl and pyrrolopyridyl radicals.
- 10. (Previously Presented) A compound according to claim 1, wherein R<sup>4</sup> represents:
  - an unsubstituted mono-(C<sub>1</sub>-C<sub>4</sub> alkyl)amino or unsubstituted di-(C<sub>1</sub>-C<sub>4</sub> alkyl)amino group;
  - a C<sub>1</sub>-C<sub>4</sub> alkyl group which is unsubstituted or substituted by one or more substituents chosen from hydroxy, C<sub>1</sub>-C<sub>4</sub> alkoxy, amino, mono-(C<sub>1</sub>-C<sub>4</sub> alkyl)amino and di-(C<sub>1</sub>-C<sub>4</sub> alkyl)amino groups;
  - an unsubstituted phenyl-(C<sub>1</sub>-C<sub>4</sub> alkyl)- group; or
  - a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n is 2 and R<sup>6</sup> represents a radical chosen from phenyl, pyridyl and thienyl, optionally substituted by one or more substituents chosen from halogen atoms, alkyl,

hydroxy, alkoxy, alkylenedioxy, amino, mono- and di-alkylamino, nitro, ciano and trifluoromethyl groups.

- 11. (Previously Presented) A compound according to claim 10 wherein R<sup>4</sup> represents an alkyl group having from 1 to 6 carbon atoms and which is optionally substituted by one or more substituents chosen from halogen atoms and hydroxy groups.
- 12. (Previously Presented) A compound according to claim 1, wherein R<sup>5</sup> represents a group COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, wherein said COOR<sup>7</sup> or monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms, C<sub>1</sub>-C<sub>4</sub> alkyl groups, C<sub>1</sub>-C<sub>4</sub> alkoxycarbonyl groups, hydroxycarbonyl groups and C<sub>1</sub>-C<sub>4</sub> alkoxy groups.
- 13. (Previously Presented) A compound according to claim 12, wherein  $R^5$  represents a group  $COOR^7$  or a monocyclic or polycyclic aryl or heteroaryl group, wherein said  $COOR^7$  or a monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms and  $C_1$ - $C_4$  alkoxy groups.
- 14. (Previously Presented) A compound according to claim 12, wherein R<sup>5</sup> represents –CO<sub>2</sub>R<sup>7</sup>, wherein R<sup>7</sup> represents an unsubstituted C<sub>1</sub>-C<sub>4</sub> alkyl group, or R<sup>5</sup> represents a phenyl group or a 5- to 10- membered monocyclic or polycyclic heteroaryl group containing 1 or 2 heteroatoms chosen from N, O and S, the phenyl and heteroaryl

groups being unsubstituted or substituted by 1 or 2 substituents chosen from C<sub>1</sub>-C<sub>4</sub> alkoxy groups and halogen atoms.

- 15. (Previously Presented) A compound according to claim 14, wherein R<sup>5</sup> represents a phenyl group, or a substituted or unsubtituted heteroaryl group chosen from substituted or unsubstituted oxadiazolyl, oxazolyl, pyridyl, pyrrolyl, imidazolyl, thiazolyl, thiadiazolyl, thienyl, furanyl, quinolinyl, isoquinolinyl, indolyl, benzoxazolyl, naphthyridinyl, benzofuranyl, pyrazinyl, pyrimidinyl and pyrrolopyridyl radicals.
- 16. (Currently Amended) A compound according to claim 1, wherein

  A pyridazin-3(2H)-one derivative compound of formula (I):

#### wherein

R<sup>1</sup> and R<sup>2</sup> represent independently from each other:

- a hydrogen atom;
- <u>a group chosen from acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl and dialkylcarbamoyl;</u>
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is optionally substituted by one or more substituents chosen from halogen atoms,

- hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, carbamoyl and mono- and di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, wherein said aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;
- a saturated or unsaturated heterocyclic group, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, oxo, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;
- a group of formula

# -(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents
   chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio,
   amino, mono- and di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl,
   carbamoyl, mono- and di-alkylcarbamoyl, cyano, trifluoromethyl,
   difluoromethoxy and trifluoromethoxy groups;

or a 3- to 7-membered ring having from 1 to 4 heteroatoms chosen from
 nitrogen, oxygen and sulphur, which ring is optionally substituted by one or
 more substituents chosen from halogen atoms, alkyl, hydroxy, alkoxy,
 alkylenedioxy, amino, mono- and di-alkylamino, nitro, cyano and
 trifluoromethyl groups;

R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkylene groups, which are optionally substituted by one or more
   substituents chosen from halogen atoms; phenyl, hydroxy, hydroxyalkyl, alkoxy,
   aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
   hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl
   groups;
- phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, aryloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, acyl, amino, mono- and dialkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;

R<sup>5</sup> represents a group –COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, wherein said –COOR<sup>7</sup> or monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkenyl groups, which are optionally substituted by one or more
   substituents chosen from halogen atoms, phenyl, hydroxy, hydroxyalkyl, alkoxy,
   aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
   hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl
   groups; and
- phenyl, hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, amino, mono- and di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;

R<sup>7</sup> represents an alkyl, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, monoand di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, monoand di-alkylcarbamoyl groups, and a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n and R<sup>6</sup> are as defined above; and

## R<sup>4</sup> represents:

- a hydrogen atom;
- a hydroxy, alkoxy, amino, mono- or di-alkylamino group;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino,
  acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl and mono- and di-alkylcarbamoyl groups;
- or a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n and R<sup>6</sup> are as defined above

or a N-oxide obtainable from heteroaryl radicals present in the structure when said

heteroradical comprise at least one N atom or a pharmaceutically acceptable salt

thereof

with the proviso that when R<sup>5</sup> is neither an optionally substituted heteroaryl group nor a group COOR<sup>7</sup>, R<sup>3</sup> is an optionally substituted heteroaryl group;

wherein when R<sup>5</sup> represents a polycyclic heteroaryl group, R<sup>5</sup> represents a group of formula (XXIII):

$$(R)_n$$
  $(XXIII)$ 

wherein Y represents an O atom, a S atom or an -NH- group, n is 0, 1 or 2 and each R is the same or different and is a  $C_1$ - $C_4$  alkoxy group or a halogen atom.

## 17. (Currently Amended) A compound as claimed in claim 1, chosen from :

5-acetyl-2-ethyl-4-[(3-fluorophenyl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one; 5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one; 5-acetyl-4-[(3,5-dichlorophenyl)amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(1-naphthylamino)-6-pyridin-3-ylpyridazin-3(2H)-one; methyl 4-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzoate;

5-acetyl-2-ethyl-4-[(2-fluorophenyl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one;
5-acetyl-4-[(2-chlorophenyl)amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-3-ylpyridazin-3(2H)-one;

3-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile; 5-acetyl-4-[(3-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-4-[(3,5-dichlorophenyl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-4-[(2-fluorophenyl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[(2-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

3-{[5-acetyl-2-(cyclopropylmethyl)-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl]amino}benzonitrile;

methyl 4-{[5-acetyl-2-(2-hydroxyethyl)-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl]amino}benzoate;

5-acetyl-4-[(2-fluorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[(2-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-pyridin-2-ylpyridazin-3(2H)-one;
3-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-2-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile;
5-acetyl-2-ethyl-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-2-ylpyridazin-3(2H)-one;

3-{[5-acetyl-2-(cyclopropylmethyl)-3-oxo-6-pyridin-2-yl-2,3-dihydropyridazin-4-yl]amino}benzonitrile;

5-acetyl-4-[(3-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-2-ylpyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-2-ylpyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-4-[(3,5-dichlorophenyl)amino]-6-pyridin-2-ylpyridazin-3(2H)-one;

3-{[5-acetyl-2-(2-hydroxyethyl)-3-oxo-6-pyridin-2-yl-2,3-dihydropyridazin-4-yl]amino}benzonitrile;

5-acetyl-4-[(3-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-2-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3,5-dichlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-2-ylpyridazin-3(2H)-one;

5-acetyl-2-(2-hydroxyethyl)-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-2-ylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(3-fluorophenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one; 5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(1-naphthylamino)-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(2-methylphenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;

methyl 4-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-

yl)amino]benzoate;

5-acetyl-2-ethyl-4-[(2-methoxyphenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(3-methoxyphenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(2-fluorophenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(2-chlorophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one;
3-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile;
5-acetyl-2-ethyl-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-4-ylpyridazin-3(2H)-one;

4-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl)amino]benzoic acid;

5-acetyl-2-(cyclopropylmethyl)-4-[(2-fluorophenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(2-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;

3-{[5-acetyl-2-(cyclopropylmethyl)-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl]amino}benzonitrile;

5-acetyl-2-(cyclopropylmethyl)-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(2-fluorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(2-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;

3-{[5-acetyl-2-(2-hydroxyethyl)-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl]amino}benzonitrile;

5-acetyl-2-(2-hydroxyethyl)-4-{[4-(hydroxymethyl)phenyl]amino}-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-thien-2-ylpyridazin-3(2H)-one;
5-acetyl-4-[bis(3-fluorophenyl)amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one;
5-acetyl-4-[bis-(4-methoxycarbonylphenyl)-amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-{bis[4-(hydroxymethyl)phenyl]amino}-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(3-nitrophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one; 5-acetyl-4-[bis(3-fluorophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one; 5-acetyl-4-[bis(3-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(3,5-dichlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(4-methoxycarbonylphenyl)amino]-2-(2-hydroxyethyl)-6- pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(3-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-2-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(3-chlorophenyl)amino]-2-(cyclopropylmethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;

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5-acetyl-4-[(3,5-dichloropyridin-4-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-(pyrazin-2-ylamino)pyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-(pyrimidin-2-ylamino)pyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-(quinolin-8-ylamino)pyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-[(5-nitropyridin-2-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-(1h-indol-4-ylamino)-6-phenylpyridazin-3(2H)-one;
5-acetyl-4-(1,3-benzothiazol-6-ylamino)-2-ethyl-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-(thianthren-1-ylamino)pyridazin-3(2H)-one;
methyl 3-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-
yl)aminolthiophene-2-carboxylate;
5-acetyl-2-ethyl-4-[(4-methylpyridin-2-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-(1h-1,2,4-triazol-5-ylamino)pyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-[(6-methoxypyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-(2H-indazol-5-ylamino)-6-phenylpyridazin-3(2H)-one;
methyl 4-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-
yl)aminolthiophene-3-carboxylate;
5-acetyl-2-ethyl-6-phenyl-4-(pyridin-2-ylamino)pyridazin-3(2H)-one;
3-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]thiophene-2-
carboxylic acid;
5-acetyl-2-ethyl-4-[(3-methylcinnolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-[(2-methylquinolin-8-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-(1h-indol-5-ylamino)-6-phenylpyridazin-3(2H)-one;
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5-acetyl-2-ethyl-4-(isoquinolin-5-ylamino)-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-[(6-methoxyquinolin-8-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-4-[(5-bromoquinolin-8-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-[(4-methylpyrimidin-2-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
5-acetyl-6-(3-chlorophenyl)-2-(cyclopropylmethyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(3-fluorophenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-6-(3-fluorophenyl)-2-isopropyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-6-(3-fluorophenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-6-(1h-benzimidazol-2-yl)-4-[(3-chlorophenyl)amino]-2-ethylpyridazin-3(2H)-one;

5-acetyl-6-(1,3-benzoxazol-2-yl)-4-[(3-chlorophenyl)amino]-2-ethylpyridazin-3(2H)-one;

5-acetyl-6-(1,3-benzoxazol-2-yl)-2-ethyl-4-[(3-fluorophenyl)amino]pyridazin-3(2H)-one;

5-acetyl-6-benzooxazol-2-yl-4-[bis-(3-chlorophenyl)-amino]-2-ethyl-pyridazin-3(2H)-one;

5-acetyl-6-benzooxazol-2-yl-4-[bis-(3-fluorophenyl)-amino]-2-ethyl-pyridazin-3(2H)-one;

3-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzamide;

5-acetyl-2-ethyl-4-(isoquinolin-1-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-[(2-butylquinazolin-4-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-(1,2-benzisothiazol-3-ylamino)-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(pyridin-4-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(2-hydroxy-7h-purin-6-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(quinazolin-4-ylamino)pyridazin-3(2H)-one; 5-acetyl-4-[(4-chloro-1H-indazol-3-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-[(7-chloroquinolin-4-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-[(4,6-dichloropyrimidin-2-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(6-hydroxy-2H-pyrazolo[3,4-d]pyrimidin-4-yl)amino]-6phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(2-methylquinolin-4-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(1H-imidazol-2-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(quinolin-4-ylamino)pyridazin-3(2H)-one; 5-acetyl-4-(cinnolin-4-ylamino)-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(1H-pyrazolo[3,4-d]pyrimidin-4-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(thieno[2,3-d]pyrimidin-4-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(1H-indazol-6-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-(2-methoxypyridin-4-yl)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-{[4-(hydroxymethyl)phenyl]amino}-6-(6-methoxypyridin-3vI)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(3-methoxyphenyl)amino]-6-thien-3-ylpyridazin-3(2H)-one;
5-acetyl-6-(1-benzofuran-5-yl)-2-ethyl-4-[(3-fluorophenyl)amino]pyridazin-3(2H)-one;
1-ethyl-5-[(3-methoxyphenyl)amino]-n,n-dimethyl-6-oxo-3-pyridin-3-yl-1,6-dihydropyridazine-4-carboxamide;

5-[(3-chlorophenyl)amino]-1-ethyl-n-methyl-6-oxo-3-pyridin-4-yl-1,6-dihydropyridazine-4-carboxamide;

2-ethyl-4-[(3-fluorophenyl)amino]-5-glycoloyl-6-pyridin-4-ylpyridazin-3(2H)-one; 2-ethyl-4-[(3-fluorophenyl)amino]-5-(methoxyacetyl)-6-pyridin-3-ylpyridazin-3(2H)-one;

5-[(dimethylamino)acetyl]-2-ethyl-4-[(3-methoxyphenyl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one;

2-ethyl-4-[(3-fluorophenyl)amino]-5-[(methylamino)acetyl]-6-pyridin-4-ylpyridazin-3(2H)-one;

3-{[2-ethyl-3-oxo-5-(3-phenylpropanoyl)-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl]amino}benzamide;

ethyl 4-acetyl-5-[(3-chlorophenyl)amino]-1-ethyl-6-oxo-1,6-dihydropyridazine-3-carboxylate;

ethyl 4-acetyl-5-amino-1-ethyl-6-oxo-1,6-dihydropyridazine-3-carboxylate; 5-acetyl-6-(1,3-benzoxazol-2-yl)-2-ethyl-4-[(3-methoxyphenyl)amino]pyridazin-3(2H)-one;

5-acetyl-6-(1,3-benzoxazol-2-yl)-2-ethyl-4-{[4-

(hydroxymethyl)phenyl]amino}pyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(1,6-naphthyridin-8-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(5-methoxypyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-pyridin-4-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-4-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-pyridin-4-yl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-3-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-pyridin-3-yl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(quinolin-5-ylamino)-6-thien-2-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(pyridin-3-ylamino)-6-thien-2-ylpyridazin-3(2H)-one; 4-[(5-acetyl-2-ethyl-3-oxo-6-thien-2-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile; 5-acetyl-2-ethyl-6-thien-2-yl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one; 5-Acetyl-4-(bis (4-cyanophenyl)amino)- 2-ethyl-6-thien-2-ylpyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-4-(quinolin-5-ylamino)-6-thien-2-ylpyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-4-(pyridin-3-ylamino)-6-thien-2-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(quinolin-5-ylamino)-6-thien-3-ylpyridazin-3(2H)-one; 5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-thien-3-ylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(pyridin-3-ylamino)-6-thien-3-ylpyridazin-3(2H)-one; 4-[(5-acetyl-2-ethyl-3-oxo-6-thien-3-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile; 5-acetyl-2-ethyl-6-thien-3-yl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one; 2-ethyl-6-phenyl-5-(3-phenylpropanoyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one;

2-ethyl-6-phenyl-5-(3-phenylpropanoyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 2-ethyl-4-(isoquinolin-4-ylamino)-6-phenyl-5-(3-phenylpropanoyl)pyridazin-3(2H)-one;

2-ethyl-6-phenyl-4-(quinolin-5-ylamino)-5-(3-thien-3-ylpropanoyl)pyridazin-3(2H)-one;

2-ethyl-6-phenyl-4-(pyridin-3-ylamino)-5-(3-thien-3-ylpropanoyl)pyridazin-3(2H)-one; 5-acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-(1H-imidazo[4,5-b]pyridin-2-yl)pyridazin-3(2H)-one;

5-acetyl-6-(1,3-benzothiazol-2-yl)-4-[(3-chlorophenyl)amino]-2-ethylpyridazin-3(2H)-one;

5-acetyl-6-(1-benzofuran-2-yl)-4-[(3-chlorophenyl)amino]-2-ethylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-pyridin-3-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 4-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzoic acid;

5-acetyl-2-ethyl-4-[(1-oxidopyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; ethyl 3-(5-acetyl-2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydro-pyridazin-4-ylamino)benzoate;

3-[(5-acetyl-2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl)amino]benzamide; 5-acetyl-2-ethyl-6-phenyl-4-(thieno[2,3-b]pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(6-fluoropyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(2-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-{[2-(dimethylamino)pyridin-3-yl]amino}-2-ethyl-6-phenylpyridazin-3(2H)-one;

5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]pyridine-2-carboxylic acid;

5-acetyl-2-ethyl-4-[(2-methoxypyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;
5-acetyl-2-ethyl-4-(1H-indazol-4-ylamino)-6-phenylpyridazin-3(2H)-one;
5-acetyl-4-[(2-chloropyridin-3-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one;
5-acetyl-4-[(5-chloropyridin-3-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one;
5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]nicotinamide;
5-acetyl-2-ethyl-4-(1,7-naphthyridin-8-ylamino)-6-phenylpyridazin-3(2H)-one;
2-ethyl-5-glycoloyl-4-[(2-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;
methyl 5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]nicotinate;

5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]nicotinic acid; 5-acetyl-2-ethyl-4-(1,5-naphthyridin-3-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(8-hydroxy-1,7-naphthyridin-5-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-phenyl-4-(thien-2-ylamino)pyridazin-3(2H)-one;
5-acetyl-2-ethyl-6-phenyl-4-[(2-phenylpyridin-3-yl)amino]pyridazin-3(2H)-one;
ethyl {5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]pyridin-2-yl}acetate;

5-acetyl-2-ethyl-4-[(6-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(6-hydroxypyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(2-fluoropyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-4-[(6-chloro-4-methylpyridin-3-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(3-hydroxypyridin-2-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(4-methoxypyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(isoquinolin-8-ylamino)-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-phenyl-4-(quinolin-7-ylamino)pyridazin-3(2H)-one;

 $5\hbox{-}acetyl\hbox{-}4\hbox{-}[(5\hbox{-}chloropyridin\hbox{-}3\hbox{-}yl)amino]\hbox{-}2\hbox{-}ethyl\hbox{-}6\hbox{-}(3\hbox{-}fluorophenyl)pyridazin-}$ 

3(2H)-one;

5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-[(2-methoxypyridin-3-yl)amino]pyridazin-

3(2H)-one;

5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-[(2-methylpyridin-3-yl)amino]pyridazin-

3(2H)-one;

5-acetyl-4-[(2-chloropyridin-3-yl)amino]-2-ethyl-6-(4-fluorophenyl)pyridazin-

3(2H)-one;

5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-

3(2H)-one;

5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-[(2-fluoropyridin-3-yl)amino]pyridazin-

3(2H)-one;

5-acetyl-4-[(2-chloropyridin-3-yl)amino]-2-(cyclopropylmethyl)-6-(4-

fluorophenyl)pyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-[(2-methoxypyridin-3-

yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-[(2-methylpyridin-3-

yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-[(2-fluoropyridin-3-

yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-[(4-methylpyridin-3-

yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-[(pyridin-3-yl)amino]pyridazin-

3(2H)-one;

5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-[(2-methylpyridin-3-yl)amino]pyridazin-

3(2H)-one;

5-acetyl-6-(3-chlorophenyl)-4-[(2-chloropyridin-3-yl)amino]-2-ethylpyridazin-

3(2H)-one;

5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-[(4-methylpyridin-3-yl)amino]pyridazin-

3(2H)-one;

methyl 5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-

yl)amino]quinoline-8-carboxylate;

5-acetyl-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(isoguinolin-4-ylamino)-6-(4-methoxyphenyl)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(4-methoxyphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(4-methoxyphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(4-methoxy-phenyl)-4-(1-oxy-quinolin-5-ylamino)-2H-pyridazin-3-

one

5-acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-(3-methoxyphenyl)pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(3-methoxyphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(3-methoxyphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(3-methoxyphenyl)-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-(4-methylphenyl)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(4-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(4-methylphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(4-methylphenyl)-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(4-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-(3-methylphenyl)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(3-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(3-methylphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(3-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one;

methyl 4-[4-acetyl-1-ethyl-5-(isoquinolin-4-ylamino)-6-oxo-1,6-dihydropyridazin-3-yl]benzoate;

methyl 4-[4-acetyl-1-ethyl-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-3-yl]benzoate;

4-[4-acetyl-1-ethyl-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-3-yl]benzoic acid;

methyl 4-{4-acetyl-1-ethyl-5-[(4-methylpyridin-3-yl)amino]-6-oxo-1,6-dihydropyridazin-3-yl}benzoate;

4-{4-acetyl-1-ethyl-5-[(4-methylpyridin-3-yl)amino]-6-oxo-1,6-dihydropyridazin-3-yl}benzoic acid;

methyl 3-[4-acetyl-1-ethyl-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-3-yl]benzoate;

3-[4-acetyl-1-ethyl-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-3-yl]benzoic acid;

5-acetyl-4-[(3-chloro-4-fluorophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(3-chloro-4-fluorophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one;

5-acetyl-4-[(3-chloro-4-fluorophenyl)amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one;

5-acetyl-4-[bis(3-chloro-4-fluorophenyl)amino]-2-ethyl-6-pyridin-3-ylpyridazin-3(2H)-one;

methyl [4-acetyl-6-oxo-3-phenyl-5-(quinolin-5-ylamino)pyridazin-1(6H)-yl]acetate; [4-acetyl-6-oxo-3-phenyl-5-(quinolin-5-ylamino)pyridazin-1(6H)-yl]acetic acid; 5-acetyl-2-ethyl-4-[(3-methylpyridin-2-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(1H-pyrazol-3-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-phenyl-4-(9H-purin-6-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(3-methylisoxazol-5-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-[(8-hydroxyquinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-2-ethyl-4-(1H-indazol-7-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-4-[(6-bromoguinolin-8-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(5-methylisoxazol-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-(isoxazol-3-ylamino)-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-6-phenyl-4-(quinolin-8-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(1-methyl-1H-pyrazol-3-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(1-oxidoguinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(2-oxidoisoguinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-(quinolin-8-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-pyridin-4-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-pyridin-3-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-4-[(8-fluoroquinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-(quinolin-8-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-(quinolin-8-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-(cyclopropylmethyl)-6-(4-fluorophenyl)-4-(quinolin-5-ylamino)pyridazin-

5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one;

3(2H)-one;

5-acetyl-2-ethyl-4-[(2-methylquinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one;

5-acetyl-6-(3-chlorophenyl)-2-ethyl-4-(isoquinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(4-fluorophenyl)-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one;

5-acetyl-2-ethyl-6-(3-fluorophenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one; 5-acetyl-2-ethyl-6-(3-fluorophenyl)-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one; and

5-[(5-acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]quinoline-8-carboxylic acidand pharmaceutically acceptable salts thereof.

- 18. (Previously Presented) A compound as claimed in claim 17, chosen from:
  - 5-Acetyl-2-ethyl-4-[(3-fluorophenyl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one;
  - 5-Acetyl-2-ethyl-4-(1-naphthylamino)-6-pyridin-3-ylpyridazin-3(2H)-one;
  - 5-Acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-pyridin-4-ylpyridazin-3(2H)-one;
  - 5-Acetyl-2-ethyl-4-(1-naphthylamino)-6-pyridin-4-ylpyridazin-3(2H)-one;
  - 5-Acetyl-2-ethyl-4-[(2-methylphenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;
  - 5-Acetyl-2-ethyl-4-[(3-methoxyphenyl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;
  - 4-[(5-Acetyl-2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl)amino]benzoic acid;
  - 5-Acetyl-4-[(3-chlorophenyl)amino]-2-(2-hydroxyethyl)-6-pyridin-4-ylpyridazin-3(2H)-one;
  - 5-Acetyl-4-[(3-chlorophenyl)amino]-2-ethyl-6-thien-2-ylpyridazin-3(2H)-one;
  - 5-Acetyl-2-ethyl-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
  - 5-Acetyl-2-ethyl-6-phenyl-4-(quinolin-8-ylamino)pyridazin-3(2H)-one;

- 5-Acetyl-2-ethyl-4-(1H-indol-4-ylamino)-6-phenylpyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-6-(3-fluorophenyl)-2-isopropyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-2-(cyclopropylmethyl)-6-(3-fluorophenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-6-(4-fluorophenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-(isoquinolin-5-ylamino)-6-phenylpyridazin-3(2H)-one;
- 5-Acetyl-6-(1,3-benzoxazol-2-yl)-2-ethyl-4-[(3-fluorophenyl)amino]pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-[(1-oxidoquinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-phenylpyridazin-3(2H)-one;
- 2-Ethyl-6-phenyl-5-(3-phenylpropanoyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-(3-methylphenyl)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-4-ylpyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-(isoquinolin-4-ylamino)-6-(4-methylphenyl)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-6-(4-fluorophenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one;
- 5-[(5-Acetyl-2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]quinoline-8-carboxylic acid;
- 5-Acetyl-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one; Methyl 3-[4-acetyl-1-ethyl-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-3-yl]benzoate;

- 5-acetyl-2-ethyl-6-(3-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-(pyridin-3-ylamino)-6-thien-3-ylpyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-[(2-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one;
- 3-(4-Acetyl-5-amino-1-ethyl-6-oxo-1,6-dihydro-pyridazin-3-yl)-benzoic acid methyl ester;
- 5-Acetyl-2-ethyl-6-(3-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-6-(3-fluorophenyl)-4-(pyridin-3-ylamino)-pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one;
- 5-Acetyl-4-[(2-chloropyridin-3-yl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-6-pyridin-3-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one;
- 5-Acetyl-2-ethyl-6-(4-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-
- 3(2H)-one; and
- 5-Acetyl-2-ethyl-6-phenyl-4-(thieno[2,3-b]pyridin-3-ylamino)pyridazin-3(2H)-one.
- 19. (Previously Presented) A process for the preparation of a compound of formula (XXIV):

### wherein

R<sup>1</sup> and R<sup>2</sup> represent independently from each other:

- a hydrogen atom;
- a group chosen from acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl and dialkylcarbamoyl;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
  carbamoyl and mono- and di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, wherein said aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;

- a saturated or unsaturated heterocyclic group, which is optionally substituted by one
  or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl,
  hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio,
  oxo, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, monoand di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and
  trifluoromethoxy groups;
- a group of formula

$$-(CH_2)_n-R^6$$

wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents
  chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio,
  amino, mono- and di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl,
  carbamoyl, mono- and di-alkylcarbamoyl, cyano, trifluoromethyl,
  difluoromethoxy and trifluoromethoxy groups;
- or a 3- to 7-membered ring having from 1 to 4 heteroatoms chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- and di-alkylamino, nitro, cyano and trifluoromethyl groups;

R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkylene groups, which are optionally substituted by one or more substituents chosen from halogen atoms; phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl groups;
- phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, aryloxy, alkylthio,
  alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, acyl, amino, mono- and dialkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and
  di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido,
  aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and
  trifluoromethoxy groups; and

## R<sup>4</sup> represents:

- a hydrogen atom;
- a hydroxy, alkoxy, amino, mono- or di-alkylamino group;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl and mono- and di-alkylcarbamoyl groups;

• or a group of formula

$$-(CH_2)_n-R^6$$

wherein n and R<sup>6</sup> are as defined above

wherein each G<sub>1</sub>, G<sub>2</sub>, G<sub>3</sub> and G<sub>4</sub> independently represents a nitrogen or carbon atom, Y represents an O atom, a S atom or an –NH- group and the benzene ring may optionally be substituted by one or more substituents, which process comprises reacting a carboxylic acid ester of formula (VII)

$$R^3$$
 $N$ 
 $N$ 
 $R^1$ 
 $N$ 
 $R^1$ 
 $N$ 
 $R^1$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 

VII

wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are as defined above, with an ortho-subtituted aniline of formula (VIII) in the presence of a dehydrating agent,

$$G_{2} G_{1} VH_{2}$$

$$G_{3} G_{4} V$$
(VIII)

wherein each G<sub>1</sub>, G<sub>2</sub>, G<sub>3</sub> and G<sub>4</sub> independently represent a nitrogen or carbon atom and Y represents an amino, mercapto or hydroxy group.

#### 20. (Previously Presented) A compound of formula (XXV)

$$\begin{array}{c|c}
M^2 & O \\
M^3 & N & R^1 \\
O & N & N
\end{array}$$

$$\begin{array}{c|c}
N & R^1 \\
N & CO_2R^7
\end{array}$$
(XXV)

wherein  $M^2$  is either a hydrogen atom or a group  $R^2$  and  $M^3$  is either a hydrogen atom or a group  $R^3$ , and wherein

R<sup>1</sup> and R<sup>2</sup> represent independently from each other:

- a hydrogen atom;
- a group chosen from acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl and dialkylcarbamoyl;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
  carbamoyl and mono- and di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, wherein said aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, amino, nitro, cyano, mono- and di-alkylamino, acylamino,

carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;

- a saturated or unsaturated heterocyclic group, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, oxo, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;
- a group of formula

wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents
  chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio,
  amino, mono- and di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl,
  carbamoyl, mono- and di-alkylcarbamoyl, cyano, trifluoromethyl,
  difluoromethoxy and trifluoromethoxy groups;
- or a 3- to 7-membered ring having from 1 to 4 heteroatoms chosen from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- and di-alkylamino, nitro, cyano and trifluoromethyl groups;

R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkylene groups, which are optionally substituted by one or more substituents chosen from halogen atoms; phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl groups;
- phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, aryloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, acyl, amino, mono- and dialkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;

R<sup>5</sup> represents a group –COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group,wherein said –COOR<sup>7</sup> or monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkenyl groups, which are optionally substituted by one or more substituents chosen from halogen atoms, phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,

hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl groups; and

phenyl, hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, amino, mono- and di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;

wherein R<sup>7</sup> represents an alkyl, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl groups, and a group of formula

and

# R<sup>4</sup> represents:

- a hydrogen atom;
- a hydroxy, alkoxy, amino, mono- or di-alkylamino group;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino,

acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl and mono- and dialkylcarbamoyl groups;

• or a group of formula

wherein n and R<sup>6</sup> are as defined above.

- 21. (Original) A compound according to claim 20, which is ethyl 4-acetyl-5-amino-1-ethyl-6-oxo-1,6-dihydropyridazine-3-carboxylate.
- 22. (Cancelled)
- 23. (Previously Presented) A pharmaceutical composition comprising a compound as claimed in claim 1, mixed with a pharmaceutically acceptable diluent or carrier.
- 24. (Cancelled)
- 25. (Cancelled)
- 26. (<u>Cancelled</u>) A method for treating a subject afflicted with a pathologicalcondition or disease susceptible to amelioration by inhibition of phosphodiesterase 4,

which method comprises administering to the said subject an effective amount of a compound as claimed in claim 1.

- 27. (Currently Amended) A method according to claim 26-method for treating a subject afflicted with a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4, which method comprises administering to the said subject an effective amount of a compound as claimed in claim 1, wherein the pathological condition or disease is chosen from asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, and atopic dermatitis, psoriasis and irritable bowel disease.
- 28. (Currently Amended) A composition comprising:
  - (i) a compound as claimed in claim 1;
    a pyridazin-3(2H)-one derivative compound of formula (I):

#### wherein

R<sup>1</sup> and R<sup>2</sup> represent independently from each other:

- a hydrogen atom;
- a group chosen from acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl and dialkylcarbamoyl;

- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
   optionally substituted by one or more substituents chosen from halogen atoms,
   hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
   carbamoyl and mono- and di-alkylcarbamoyl groups;
- an aryl or heteroaryl group, wherein said aryl or heteroaryl group is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, mono- and di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;
- a saturated or unsaturated heterocyclic group, which is optionally substituted by one
  or more substituents chosen from halogen atoms, hydroxy, hydroxyalkyl,
  hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxyacyl, aryloxy, acyl, acyloxy, alkylthio,
  oxo, amino, nitro, cyano, mono- and di-alkylamino, acylamino, carbamoyl, monoand di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy and
  trifluoromethoxy groups;
- a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents
   chosen from halogen atoms, alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio,
   amino, mono- and di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl,

- carbamoyl, mono- and di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy and trifluoromethoxy groups;
- or a 3- to 7-membered ring having from 1 to 4 heteroatoms chosen from
   nitrogen, oxygen and sulphur, which ring is optionally substituted by one or
   more substituents chosen from halogen atoms, alkyl, hydroxy, alkoxy,
   alkylenedioxy, amino, mono- and di-alkylamino, nitro, cyano and
   trifluoromethyl groups;

R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkylene groups, which are optionally substituted by one or more
  substituents chosen from halogen atoms; phenyl, hydroxy, hydroxyalkyl, alkoxy,
  aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
  hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl
  groups;
- phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, aryloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, acyl, amino, mono- and dialkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy groups;

R<sup>5</sup> represents a group –COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, wherein said –COOR<sup>7</sup> or monocyclic or polycyclic aryl or heteroaryl group is optionally substituted by one or more substituents chosen from:

- halogen atoms;
- alkyl and alkenyl groups, which are optionally substituted by one or more
   substituents chosen from halogen atoms, phenyl, hydroxy, hydroxyalkyl, alkoxy,
   aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino,
   hydroxycarbonyl, alkoxycarbonyl, carbamoyl, and mono- and di-alkylcarbamoyl
   groups; and
- phenyl, hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylsulfamoyl, amino, mono- and di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulphamido, aminosuphonyl, mono- and di-alkylaminosulphonyl, cyano, difluoromethoxy and trifluoromethoxy aroups;

wherein R<sup>7</sup> represents an alkyl, which is optionally substituted by one or more substituents chosen from halogen atoms, hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- and di-alkylcarbamoyl groups, and a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n and R<sup>6</sup> are as defined above; and

### R<sup>4</sup> represents:

- a hydrogen atom;
- a hydroxy, alkoxy, amino, mono- or di-alkylamino group;
- an alkyl, alkenyl or alkynyl group, wherein said alkyl, alkenyl or alkynyl group is
  optionally substituted by one or more substituents chosen from halogen atoms,
  hydroxy, alkoxy, aryloxy, alkylthio, oxo, amino, mono- and di-alkylamino,
  acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl and mono- and di-alkylcarbamoyl groups;
- or a group of formula

-(CH<sub>2</sub>)<sub>n</sub>-R<sup>6</sup>

wherein n and R<sup>6</sup> are as defined above

or a N-oxide obtainable from heteroaryl radicals present in the structure when said heteroradical comprise at least one N atom or a pharmaceutically acceptable salt thereof;

with the proviso that when R<sup>5</sup> is neither an optionally substituted heteroaryl group nor a group COOR<sup>7</sup>, R<sup>3</sup> is an optionally substituted heteroaryl group.

and

- (ii) another compound chosen from (a) steroids, (b) immunosuppressive agents, (c) T-cell receptor blockers and (d) antiinflammatory drugs.
- 29. (Previously Presented) A compound according to claim 14, wherein the phenyl and heteroaryl groups are unsubstituted or substituted by 1 or 2 substituents selected from C<sub>1</sub>-C<sub>4</sub> alkoxy groups, chlorine atoms and fluorine atoms.
- 30. (New) A method for treating a subject afflicted with a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4, which method comprises administering to the said subject an effective amount of a compound as claimed in claim 1, wherein the pathological condition or disease is chosen from chronic obstructive pulmonary disease, rheumatoid arthritis, psoriasis and irritable bowel disease.